

CLAIMS

1. A method for controlling an illumination system for a mobile device,
the method comprising:
measuring a first intensity of ambient light for the mobile device using a
5 light sensing mechanism;
comparing the first intensity with a threshold value;
adjusting illumination intensity of an illuminating mechanism that
illuminates a user interface component of the mobile device, when the first
intensity is not approximately equal to a first threshold value.
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2. The method of claim 1, wherein the adjusting comprises increasing
the illumination intensity of the illuminating mechanism.
3. The method of claim 1, wherein the adjusting comprises decreasing
15 the illumination intensity of the illuminating mechanism.
4. The method of claim 2, wherein the adjusting takes place when the
first intensity is less than the threshold value.
- 20 5. The method of claim 3, wherein the adjusting takes place when the
first intensity is greater than the threshold value.
6. The method of claim 1, wherein the illuminating mechanism is a
backlight for lighting the user interface.
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7. The method of claim 6, wherein the illuminating mechanism is a
light emitting diode (LED).
8. The method of claim 1, wherein the user interface comprises one or
30 more keys on a keypad of the mobile device.

9. The method of claim 1, wherein the user interface comprises a display screen of the mobile device.

5 10. The method of claim 1, further comprising:
adjusting illumination intensity of a second illuminating mechanism that illuminates a second user interface component of the mobile device, when the first intensity is not equal to a second threshold value.

10 11. An illumination system for illuminating one or more user interface components of a mobile device, the illumination system comprising:
a light sensor for measuring intensity of ambient light;
a first illumination mechanism for illuminating a first user interface component;
15 a power management module for adjusting illumination intensity of the first illumination mechanism based on the intensity of the ambient light.

12. The system of claim 11, wherein the power management module causes the illumination intensity of the first illumination mechanism to be
20 increased, when the intensity of the ambient light is less than a first threshold.

13. The system of claim 11, wherein the power management module causes the illumination intensity of the first illumination mechanism to be decreased, when the intensity of the ambient light is more than a first threshold.
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14. The system of claim 11, wherein the light sensor comprises a phototransistor.

15. The system of claim 11, wherein the first illumination mechanism
30 comprises a light emitting diode (LED).

16. The system of claim 11, wherein the power management module comprises:

a comparator for comparing a first signal generated by the light sensor with a second signal generated by a voltage source, wherein the first signal represents the intensity of the ambient light and the second signal represents a first threshold value.

17. The system of claim 16, wherein the power management module further comprises:

a converter for adjusting illumination intensity of the first illumination mechanism based on a third signal generated by the comparator, the third signal representing a relationship between the values represented by the first signal and the second signal.

18. The system of claim 11, wherein the power management module comprises:

a power management chip in communication with a microcontroller for determining a degree with which the illumination intensity of the first illumination mechanism is adjusted.

19. The system of claim 18, wherein the power management chip comprises an analog to digital (A/D) converter for converting a first signal provided by the light sensor to a second signal provided to the microcontroller, wherein the first signal represents intensity of the ambient light, and the second signal represents a value used by the microcontroller to adjust the intensity of the first illumination mechanism.

20. A method of configuring one or more illumination states for illuminating at least two user interface devices of a mobile device, the method comprising:

assigning a first illumination state to first and second user interface devices,
when intensity of ambient light is greater than a first threshold;

assigning the first illumination state to the first interface device, and a
second illumination state to the second interface device, when the intensity of the
5 ambient light is between the first threshold and a second threshold; and

assigning the second illumination state to the first and second user interface
devices, when the intensity of the ambient light is less than the second threshold,

wherein the first illumination state represents an on state and the second
illumination state represents an off state.

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